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ABSTRACT

An effective method for assessing responsiveness to adult undergraduates in institutions serving primarily traditional-age students is described. Information from previous literature was applied to the University of Massachusetts at Amherst in order to gather quantitative data on usage of certain practices plus a sense of campus receptivity to, and student satisfaction with, those effective practices. "Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide" was used to develop the organizing framework, theoretical base, and an item pool for the survey instruments. Data were manipulated in order to, among other things: rank practices according to the extent of proponence and usage; rank widely applicable support service practices, and characterize the institution as a whole. The data indicate the university is potentially responsive to adult undergraduates, but there is not a widely shared attitude that adult undergraduates are legitimate and growing. Recommendations include that: the university direct additional and public support to an academic advisors council, an office of adult learning services be established, and a task force assess the need for after 4:00 P.M. course offerings, determine older student enrollment rates in independent studies, and improve the articulation of continuing education modes of instruction. Contains 32 references. (SM)

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A METHOD FOR ASSESSING INSTITUTION-WIDE RESPONSIVENESS TO ADULT UNDERGRADUATES IN TRADITIONAL COLLEGES AND UNIVERSITIES

by

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A METHOD FOR ASSESSING INSTITUTION-WIDE RESPONSIVENESS
TO ADULT UNDERGRADUATES IN TRADITIONAL COLLEGES AND UNIVERSITIES

Abstract

An effective, efficient method has been developed for assessing responsiveness to adult undergraduates in institutions serving primarily traditional-age students. Guidelines produced by the Commission on Higher Education and the Adult Learner especially for evaluating services to adults were systematically adapted to a large public university in ways enabling a single investigator or small office to coordinate a campus-wide assessment, gather quantifiable and non-quantifiable data, and produce findings usable at various decision-making levels.

A METHOD FOR ASSESSING INSTITUTION-WIDE RESPONSIVENESS

TO ADULT UNDERGRADUATES IN TRADITIONAL COLLEGES AND UNIVERSITIES

A prediction given space in recent months in the general-circulation press and in some higher-education publications holds that within the next five years the over-age-25 undergraduate population in America's colleges and universities will, overall, equal the under-25 population. Yet an observer in the student center or near a registration line at an institution overflowing with 18-to-22-year-olds may wonder where and how adults are fitting into such a youth-dominated campus milieu--how adults are informed, taught, and advised, and how and by whom their educational and personal goals are considered in campus decision-making. The prospect of attempting to determine, in methodologically sound ways and in this accountability-conscious age, an institution's effectiveness in serving a population known to be more diverse than its younger counterpart looms as an enormous undertaking.

Help is available! I examined the research literature of adult higher education and found not only that the elusive quality labeled responsiveness to adult students can be assessed, but that systematic prioritizing and planning of improvements can follow quite feasibly. The literature now contains theory-based and practice-enriched characterizations of institutional responsiveness in terms of specific practices which are considered effective with many adult students. Using approaches requiring far fewer resources than a conventional institutional self-study, I applied the fruits of this research to a large rural land-grant university, accumulating quantitative data about usage of certain practices plus a mappable sense of campus receptivity to, and student satisfaction with, those effective practices.

PERSPECTIVES

Three perspectives informed the study: (1) the current climate in higher education for organizational self-examination; (2) the increasing numbers of enrolled and prospective adult students; and (3) the availability of a theoretically grounded, flexible assessment tool.

Institutional Self-Study

Pressures for increased accountability have made assessment, in varying interpretations, a "key word for higher education in the 1980s" (Spangehl 1987, 35). Institutional self-study has become more widespread over the last three decades, its growth influenced by requirements of external funding and increased demands for effective management (Kells 1983; Kells and Kirkwood 1979; Ewell 1984). However, such large-scale processes are not universally undertaken and are not always effectively managed or utilized by colleges and universities. A conventional campus-wide self-assessment can be costly in terms of study-team time and budgetary support, and lengthy, formidable, and cumbersome in in the amount of narrative data generated.

Adults in Higher Education

Developments in workplace and lifestyle indicate that more adults are seeking and will seek the services of colleges and universities as technological advances make jobs obsolete, as increased affluence and leisure time make attendance a more likely possibility, and as a generally more schooled (and more numerous) populace accepts the idea of recurring education as a natural part of life (Greenland 1986, 98-99). Adult students now constitute 45 percent of credit enrollment in higher education. Of the at least six million current participants who are older than the traditional-age college cohort, 75 percent are between the ages of 25 and 40, 60 percent are female, 70 percent

work full time, 60 percent are degree students, 50 percent take four or more courses per year, and 20 percent attend on a full-time basis (Aslanian and Brickell 1988).

Some institutions long ago adapted their services to meet needs of students of all ages; they're in the equity classification of the institutional development model described by Ackell et al. (1986). Others have neither examined nor expanded their missions concerning the provision of services to adults; in the model they're laissez faire or separatist institutions.

Adult participation currently varies in size and impact among institutions, however, partly explaining but not justifying the lag in institutional self-examination regarding this population. Persons over 25 constitute only about 6 percent of degree-seeking undergraduates at the University of Massachusetts at Amherst, where at time of this study (spring 1987) applications from the traditional-age cohort had reached an all-time high.

Expanding Theoretical and Assessment Literature

Concurrently with the increased participation of adults in higher education and the burgeoning attention to assessment throughout the educational enterprise, a sizable body of literature has evolved concerning the nature and effectiveness of a variety of institutional responses to adult students. This growing body of literature not only concerns the great diversity among adult learners--in age, life experience, prior schooling, goals, commitment levels, and other factors--but also seeks to build models for commonalities in, for example, the "uses for knowledge" perceived by adults (Chickering 1981, 778-779) and prompting them to seek higher education experiences at various stages, transitions, or crisis points in their lives.

All three forces described above figured in the funding, creation and publication of materials expressly designed for assessing the effectiveness

and/or readiness of postsecondary institutions to serve adult learners: Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide (1984) and two supplements (Warren 1986a, 1986b). I drew upon these materials for the initial organizing framework, theoretical base, and an item pool for the survey instruments I developed for a campus-wide assessment of the University of Massachusetts at Amherst.

I found further support for my undertakings in the research reports and philosophical analyses on which the Guide was based (especially Lindquist and Marienau 1981; Lunch, Doyle, and Chickering 1984; and Lynch and Chickering 1984). From reports of 19 self-study teams which had earlier used the Guide, I gleaned ideas for modifying and augmenting processes and content. The University of New Hampshire report, for example, expressed the need for more questions in the areas of programming, instruction, and faculty/staff development (Olivier 1986). Middle Tennessee State University added a standardized instrument for surveying adult students (Rosemary Owens, personal communication, April 7, 1987) and suggested that a small team manage the assessment process (Huffman 1986).

THE GUIDE AND ITS ADAPTATION

Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide (1984) was published by the Commission on Higher Education and the Adult Learner and the American Council on Education as part of an Institutional Self-Assessment Project underwritten by the Fund for the Improvement of Postsecondary Education (FIPSE) and the Arthur Vining Davis Foundation. Collaborators in the project were the National University Continuing Education Association, The University of Maryland University College, and the Council for the Advancement of Experiential Learning (now the Council for Adult and Experiential Learning).

The Guide is in workbook format. Its divisions correspond to typical service groupings in colleges and universities: baseline data; outreach; admissions, orientation, and advising; curriculum and instruction; academic policy and practice; academic support services; facilities and student services; faculty/staff development and rewards; activities; administrative structure/finance; and mission and objectives. Heading these categories are descriptor statements which "frequently typify good policy or practice at institutions where adult learners are well-served" (Postsecondary Education Institutions . . . , Part I 1984, 3). Diagnostic questions in each category allow reporting the presence or absence of a particular policy or practice and the status of consideration of that policy or practice. A five-point performance assessment scale is also provided for each group of practices.

The Guide was designed primarily for use by administrator-led institutional teams. Users are encouraged to select from and to modify as necessary the more than 200 diagnostic questions to suit the purposes of a particular institutional self-study. An extensive bibliography is provided for theoretical support and followup planning.

In my adaptation of the Guide to a particular campus and to my own research design I took some major departures from overall procedures and assumptions, building my rationale upon factors in the local setting, outcomes of adult higher education research, and recommendations of earlier Guide users: (1) My survey of campus personnel and adult students was planned and carried by a single researcher rather than a study team. (My "team" was my doctoral dissertation committee, whose members included faculty and administrators having specific expertise in higher education organization and management, academic-affairs administration, data analysis and institutional planning, and adult higher education theory and practice.) (2) The essential

commitment of top-level administration was a letter of endorsement from the deputy provost which accompanied my survey instruments to campus personnel. [After the project was completed, the university's Center for the Study of Adult and Higher Education demonstrated its commitment to disseminating my findings by sponsoring my summary report in its series of occasional papers Greenland, forthcoming).] (3) I excluded the performance rating exercise on the grounds that its whole-category mode of application was too broad a judgment, implying norms based on populations containing proportionately more adults. Instead I chose to present findings in formats which decision-makers at all levels could readily use to make judgments. (4) For most aspects of a conventional study-team approach--interviews, note-taking, massive narrative report--I substituted a survey-research approach so that I could gather quantifiable data from large groups which could be analyzed by computer-assisted statistical methods and reported in easily-referenced tabular form as well as in narrative form. (I retained the personal-contact aspect in interviews with heads of campus support units.)

Adapting Guide Content and Format

To adapt the Guide to the University of Massachusetts at Amherst, I selected the most applicable of the 227 diagnostic questions, sorted topics according to potential respondent groups, modified the basic question format to elicit both an attitude and a usage measure for each topic, and added new questions based on the literature and on reports of earlier Guide users. The products of these efforts were three pencil-and-paper survey instruments, which were pilot-tested by readers of appropriate expertise, and a set of 24 structured interview protocols.

Two changes affected all chosen Guide items. I changed each item from its original complete-question format to that of a participial phrase so that

I could append a two-question response which would elicit both an attitudinal and a usage measure. Figure 1 illustrates the change.

Figure 1 about here

METHODOLOGY

Design

I designed the study in three parts involving different instruments, methods, and populations. In Part I, I used my Guide-based questionnaires to survey (a) all department chairs and heads, division chairs and directors, and the heads of two adult-oriented units, the University Without Walls and the Division of Continuing Education (n=64); (b) an eleven percent random sample of full-time faculty holding academic rank (n=127); and (c) a 40 percent sample of persons with major responsibilities for academic advising (n=58). For Part II, I prepared a schedule of telephone interviews of heads of campus support services (n=24). In Part III, I used a standardized "satisfaction" instrument to survey 181 currently enrolled, degree-seeking undergraduates aged 25 or older, sampled in three degree classifications: Bachelor of General Studies (a Division of Continuing Education degree), n=7; University Without Walls (a degree featuring student/faculty collaboration and several course-delivery and credit-award modes), n=85; and "Other Majors" (students matriculated in "traditional" academic-unit groupings), n=89. In all, I asked 456 persons to supply information; a three-contact followup schedule helped boost the overall response rate to 82 percent.

FIGURE 1

EXAMPLES OF MODIFICATIONS IN GUIDE QUESTIONS

As published:*

Does your institution have a peer assistants' program for adult students who are experiencing academic difficulties?

_____ YES _____ NO _____ NOT APPLICABLE

Are accelerated or advanced placement coureses or learning experiences available for exceptionally well-qualified adult learners?

_____ YES _____ NO _____ NOT APPLICABLE

As modified for instrument sent to department/division heads:

	Are you a proponent of this practice?	Is this your department's practice?
Maintaining a peer assistance program for students (including adult students) in academic difficulty	___YES ___ NO	___YES ___NO
Making available in the department Honors or other accelerated or advanced placement courses or learning experiences for exceptionally well-qualified students	___YES ___NO	___YES ___NO

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*Source: Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide. Part II: Self-Study Instrument. ([Washington]: Commission on Higher Education and the Adult Learner and the American Council on Education, 1984), 54.

Measures

To create the three pencil-and-paper instruments for Part I, I divided selected practices from the Guide and from my list of literature-based additions according to customary functions of department/division heads, faculty, and academic advisors. I added two open-ended questions to each instrument: Heads and faculty were asked to interpret the university's mission and their department/division's mission regarding development and delivery of services to adult students. Advisors were asked to interpret their unit's purpose regarding attention to age diversity among advisees and to suggest a top-priority change for increasing unit responsiveness to adult students.

For Part II I allocated a set of general and separate sets of function-specific items to the 24 interview protocols. A vice-chancellor under whose jurisdiction half of the support services fell helped define functions.

The standardized instrument I used in Part III to assess student satisfaction levels with college services and environmental aspects is American College Testing's Student Opinion Survey. Acceptable reliability and validity levels have been established for the SOS (The ACT Evaluation/Survey Service User's Guide 1985) and half or more of its items correspond to topics in one or more of my Guide-based instruments. National normative data from ACT (Student Opinion Survey Normative Data [1987]) enabled me to compare local students with a pool of 20,000 other adult students. I added an open-ended question to the SOS, a request for two top-priority suggestions for changing university attitudes, behaviors, policies, or practices.

Conventional goals described in the survey-research literature (especially Erdos 1970; Lockhart 1984; Bradburn and Sudman 1980; Heberlein and Baumgarten 1978; Linsky 1978) concerning clarity, precision of expression, non-biasing explanation, and other enhancers of response rate guided my devel-

opment and dissemination of survey instruments. Not so conventional was my coining a word to express one of the primary measures I sought: that represented by respondents' answers to the first question in my dual format, "Are you a proponent of this practice?" Having already chosen proponent in its mildest connotation (The Random House dictionary of the English Language, s.v. "proponent") for the question itself over the too-general supporter and too-aggressive advocate, I needed a noun the structural equivalent of support and advocacy. Hence proponence, which I defined at the instrument-development level as the abstract quality one exhibits when one is a proponent of (i. e., is in favor of or receptive to) an idea or practice. Operationally, the extent of proponence for a practice listed in a survey instrument is expressed as the proportion of respondents who indicate they are proponents of that practice.

As the companion measure in the dual reponse format, I chose usage. It expresses the collective response to the second question in the dual format: "Is this your department's [division's, advising unit's] practice?" or "Is this your [personal] practice?"

The dual format allowed me to examine data in several configurations: (1) as separate measures of proponence and usage concerning individual practices and groups of practices; (2) as differentiating among respondent subgroups according to selected characteristics; (3) in combinations across common topics; and (4) in a weighting scheme suggesting the "climate" or potential for maintenance or adoption of specific practices.

DATA SOURCES AND ANALYSIS

The study provided abundant data which contributed to an overall sense of institutional responsiveness to adult students and made possible a detailed

"map" of the extent to which and the locations in which specific practices find receptivity and utilization. Focusing on unambiguous "yes" responses, I first ranked the practices in each instrument according to the number of proponents for each and then according to the number of users. Then I aggregated the same affirmative-response data (as percentages of total responses by a group) according to preselected respondent-group characteristics, and compared subgroups within respondent groups. I chose analysis of variance and an *a posteriori* contrast test, specifically the ONEWAY subroutine and Student-Newman-Keuls option described in *Statistical Procedures for the Social Sciences* (Nie *et al.* 1975). In this phase I was interested in how proponence and usage varies among department/division heads, faculty, and advisors according to their academic-unit (on this campus, "school, college, or faculty") affiliation; according to the proportions of adult undergraduates enrolled under those designations; and according to respondent gender. In addition, I examined faculty data according to academic rank and teaching level, advisor data according to adult-advisee load, faculty or staff role, and authority level. The findings proved to be readily expressible in tabular form, where I could use simple symbols to denote significant differences (see Table 1).

Table 1 about here

To look at related areas of practice at a higher level of aggregation, I juxtaposed group data of department/division heads, faculty, and advisors. I identified 27 common topics under which practices in at least two of the three instruments could be subsumed, and compared the three groups' proponence and then their usage concerning whatever function was appropriate for each group

TABLE 1

METHOD OF DISPLAYING PROPONENCE AND USAGE DATA

AND DENOTING SIGNIFICANT DIFFERENCES

Section III, Faculty Instrument: Course Design and Delivery Practices
(Figures represent percentage of group supplying unambiguous affirmative responses)

	PROPONENCE ("Are you a proponent of this practice?")					USAGE ("Is this your practice?")				
	Professors	Associate Professors	Assistant Professors	Total	F Prob. ($p \leq .05$)	Professors	Associate Professors	Assistant Professors	Total	F Prob. ($p \leq .05$)
	n=43	n=27	n=21	n=91		n=43	n=27	n=21	n=91	
Designing or revising one or more courses in ways which										
--build on or incorporate life experiences of students	48.8%	[77.8%]*	66.7%	61.5%	.0455	32.6%	48.1%	28.6%	36.3%	.3020
--allow you to vary the amount of structure you provide (e. g., organization of material, number of guidelines and requirements), depending on the needs of a particular class	76.7	81.5	85.7	80.2	.6934	62.8	66.7	66.7	64.8	.9302
--allow you to vary your role (e. g., from subject-matter specialist to resource person to mentor), depending on the needs of a particular student group	76.7	85.2	85.7	81.3	.5784	65.1	74.1	66.7	68.1	.7331
Varying your mode of delivery (e. g., lecture, discussion, peer teaching, hands-on work) according to the evidence you see of various learning preferences in a particular class	74.4	92.6	90.5	83.5	.0858	38.1	[85.2]	76.2	70.3	.0434

*Boxed figures are those shown by *a posteriori* contrast tests to be significantly higher than underlined figures. Where cells are more numerous and more than one set of contrasts must be shown, dashed-line rectangles and dashed-line underscoring may be used to indicate the additional relationships.

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under those topics. For example, in analyzing the status of the common topic off-campus courses, my comparison was of the extent offering off-campus courses (department/division heads data) with the extents of teaching off-campus courses, and advising students about off-campus courses.

I also used ANOVAs and a posteriori contrasts to examine mean satisfaction obtained from students via a five-point scale ranging from (1) very dissatisfied to (5) very satisfied. I gave closest attention to the ten services and twenty environmental aspects which correspond most closely to topics in the Guide-based instruments. As with campus-personnel data, I favored ranking as a first sorting, arranging the selected items according to mean satisfaction level of the student group. For statistical analysis, I reaggregated the data according to preselected respondent-group characteristics: degree classification, age group, gender, part-time/full-time enrollment status, and racial group. I compared mean satisfaction scores of the local student group with the those of the national normative group by means of the one-sample t test described by Levy (1968, 94-97).

I used content analysis procedures to examine responses of campus personnel and students to open-ended questions. I was guided by principles outlined by Holsti (1969) and Krippendorff (1980) and achieved satisfactory intercoder reliability levels via the statistic known as Scott's pi (Scott 1955). I derived categorization schemes for the personnel groups' responses from the responses themselves, schemes for the students' responses from response content plus an adaptation of a "barriers" model described by Cross (1981). I made four judgments for each set of responses: one for overall tone of response (positive, neutral, negative) and three content subcategory judgments.

I treated data from interviews of support-service heads in two ways. I separated responses about unique or narrowly used functions from responses to

26 of the most widely applicable questions (concerning such practices as networking and needs assessment). The former I set aside for one-on-one followup discussion with interested respondents. I used the latter as a device for rank-ordering the 26 practices according to percentages (rather than numbers) of proponents and users.

The simple weighting scheme for suggesting a climate for maintenance or adoption of practices involved awarding two points to a "Yes" and one point to a "No" in the four possible unambiguous dual responses to a practice (Yes/proponent+Yes/user; Yes/proponent+No/user; No/proponent+Yes/user; and No/proponent+No/user), summing points for each practice, then ranking practices according to their climate scores.

As a culminating, global analysis, I reflected at length on findings concerning both quantifiable and non-quantifiable data. My aim was to offer a provocative list of "most responsive" academic units and campus-personnel groups, "most satisfied" adult-student groups, and practices most likely and least likely to be maintained or adopted by the University of Massachusetts at Amherst.

FINDINGS

The findings from this large survey lent themselves well to arrangement in a comprehensive document (Greenland 1988a) replete with tables. In the present abridgement I can only highlight major ways of reporting outcomes, using as illustration some especially interesting and/or statistically significant findings.

Types of Findings

The study design enabled me to manipulate data in more than a dozen ways; some outcomes of 11 of these ways are described below: (1) ranking practices

according to the extent of proponence and of usage; (2) comparing proponence and usage of subgroups within respondent groups; (3) comparing related practices under common topics; (4) ranking widely applicable support-service practices; (5) characterizing the responsiveness of the University Without Walls and the Division of Continuing Education; (6) ranking college services and environmental aspects according to student satisfaction levels; (7) comparing satisfaction levels of subgroups within the local student group; (8) comparing satisfaction levels of local adult students with those of a national normative group; (9) augmenting empirical findings via content-analysis of written responses; (10) weighting proponence and usage to "forecast the future" of some practices in this setting; and (11) characterizing the institution as a whole. The final characterization heads the Discussion section.

Ranking Practices

Practices having highest proponence in the University of Massachusetts at Amherst are those usable with a wide age range of students. At the top for department/division heads are making academic advising available within the department, designing departmental brochures to describe a program so that students can understand its overall structure, and accepting other colleges' traditional credits and this university's continuing-education credits. Highest faculty proponence is for teaching an interdisciplinary course, supervising an independent study course, and helping students plan individualized majors or program components. Academic advisors expressed unanimous proponence for providing information to advisees about other programs of personal and career counseling on campus and for collecting advisee information in the category of basic demographic data. Widest proponence among support-service heads is for coordinating some services with other support units which have

adult students among their clientele and for informing University Without Walls students about their services.

Low-proponence practices involve the most extreme departures from traditional, campus-based programs--correspondence study; entire programs in "distance" formats; off-campus advising; off-campus remediation--and practices limited primarily to adult students--awarding credit for non-collegiate, college-level prior learning via "equivalency" methods; research on adult students. Support-service heads' proponence is lowest for exploring the possibility of creating an office for coordinating adult-student programs and services and for instituting or maintaining a peer assistance program for students in academic difficulty.

According to heads, faculty, or advisors, usage narrows rapidly beyond these widely applied practices: making academic advising available, accepting traditional transfer credits, supervising independent study courses, providing information about other advising and counseling sources, collecting basic demographic data and academic progress data about advisees, and coordination among campus support services. Practices requiring investment of disproportionate amounts of time or other resources in individual students are at intermediate usage points. Lowest in usage are delivery modes which are the severest departures from a campus-centered structure, along with research and service focused on adult students, staff development activities geared to improving service to that population, and explorations about creating an office for coordinating adult-student programs and services.

Comparisons Within Campus-Personnel Groups

Department/division heads, on the average, are proponents of about twice as many practices as are in use in their units (60 percent and 32 percent,

respectively, of the practices named in their instrument). In examples of findings below, "greater than" indicates the directionality suggested by ANOVAs and a posteriori contrast tests ($p \leq .05$).

Proponence and usage of School of Education chairs are greater than several other unit heads' concerning alternate delivery modes and credit evaluation practices. As viewed in clusters of units grouped according to adult enrollment, proponence and usage of heads/chairs in the 15-percent-adults cluster (Education plus Health Sciences) are greater than their colleagues' in the 10-percent-adults and the 5-percent-adults clusters. These differences are especially clear concerning the practices of making it possible for students to complete program requirements in evenings and on weekends, designing brochures to reflect age diversity as desirable, and making off-campus advising available.

No noteworthy significant differences according to gender of heads/chairs were identified.

Faculty, overall, are proponents of about twice as many practices as they customarily use, in a 70/35 percent ratio. Statistically, faculty proponence varies very little across school-college-faculty units, adult-enrollment clusters of units, gender groups, academic ranks, or teaching levels. Usage, however, is more varied: Usage by School of Education faculty is greater than that of several other units concerning teaching at off-campus sites and teaching courses through the Division of Continuing Education. Strikingly, although more than 80 percent of all responding faculty expressed proponence for teaching through DCE, fewer than 25 percent do so, according to usage data. Faculty usage in the 15-percent-adults cluster is greater than in the 10-percent-adults and 5-percent-adults clusters concerning the practices of incorporating students' life experiences into course design and reading about adult college students. Less easily explainable is that faculty usage

in the 5-percent-adults cluster is greater than in the 10-percent-adults cluster concerning the practices of varying faculty role and varying the amount of course structure according to particular class needs.

Statistically significant variations according to academic rank are few but noteworthy: Professors' usage is greater than that of associate and assistant professors in only one area: working with University Without Walls students. Associate professors' proponence is greater than professors' for helping students prepare portfolios to document college-level, non-collegiate prior learning; for incorporating students' life experience into course design; and for varying delivery mode according to particular class needs. Assistant professors' proponence and usage are greater than professors' for teaching through the Division of Continuing Education in response to demand identified by DCE.

Academic advisors. The gap between proponence and usage is narrower for academic advisors than for faculty or department/division heads. Overall, advisors are proponents of 75 percent of the practices named in their instrument, users of more than 50 percent.

Usage by Engineering advisors and Education advisors is greater than that of several other units concerning the practices of having staff in their units who have taken special training about advising adults or who have undertaken special reading about advising adults. These two practices also stand out dramatically as areas of significant variation when data are reaggregated in other ways: Staff advisors' proponence is greater than faculty advisors,' the proponence of higher-authority-level advisors is greater than that of lower-authority-level advisors, and female advisors' proponence is greater than males.'

Proponence of advisors whose advising load comprises more than one-fourth adults is consistently greater than the proponence of advisors with no adult

advisees; illustrative practices include advising students about credit-by-examination and credit-by-equivalency practices and encouraging other advisors to broaden their knowledge of adult learners/learning.

Common Topics

When I combined proponence and usage of heads/chairs, faculty, and advisors across 27 common topics, I found that proponence and usage are high for the independent study mode, for networking among advising sources, and for advising students about flexibility in the curriculum. Proponence and usage are low for correspondence study, media-delivery modes, and equivalency methods of awarding credit.

Comparing the three groups under common topics, I found that for 21 of the 27 topics advisors' usage of their appropriate practice is significantly greater than is faculty or heads/chairs' usage of practices appropriate to those groups. (Faculty usage is significantly higher under two common topics, heads under none) Generally, advisors advise students about various alternative course-delivery modes at a greater rate than units make such modes available. Faculty are available for evening/weekend advising more than academic or advising units make such advising available. Faculty supervise independent study at a greater rate than their academic units promote the mode.

Responsiveness of Adult-Oriented Units

Proponence of the University Without Walls unit head extends to all of the targeted department/division practices except three which involve little or no regular contact with students: offering traditional courses and entire programs through correspondence study and entire programs through independent study. The three plus three additional practices find no usage in UWW. A similar characterization of the Division of Continuing Education awaits receipt of a sizeable amount of missing data from this source.

Ranking College Services and Environmental Aspects

When I used adult students' mean satisfaction scores to rank ten services of the University of Massachusetts at Amherst, the top two spots went to library facilities/services and academic advising services. Job placement services and the credit-by-examination program fell to ninth and tenth place. Of twenty environmental aspects, flexibility to design a program of study and the availability of advisors earned the highest "satisfaction" positions. Racial harmony and the availability of desired courses at suitable times earned the lowest positions.

Comparisons within the Local Student Group

The most dramatic finding concerning preselected characteristics of local adult students is that enrollment as a University Without Walls student is closely related to significantly higher mean satisfaction scores. UWW students are more satisfied than Other Majors with flexibility to design a program of study, with availability of advisors, with value of information provided by advisors, with faculty attitude toward students, and with overall concern for students as individuals. This finding is supported when data are aggregated according to other characteristics; often elevated to higher-scoring status are these characteristics of a majority of the UWW population: older age group (more satisfied than two younger age groups), female (more satisfied than male), and part-time (more satisfied than full-time) students. Findings were fewer in the other direction in each type of comparison; however, Other Majors are more satisfied than UWW students with the availability of desired courses at suitable times and with racial harmony.

Comparing Local Students to National Norms

Concerning the ten key college services, I found no significant differences in mean satisfaction between the local adult-student group and a

national normative group. But ten of the twenty environmental aspects proved to be areas of significant variation. The local group is "more satisfied" (that is, has a significantly higher mean satisfaction score, $p \leq .05$) than the norm group with three aspects: flexibility to design a program of study, availability of advisors, and campus media. The national group is more satisfied than the local group with seven aspects: attitude of faculty toward students, attitude of non-teaching staff toward students, concern for students as individuals, the availability of desired courses at suitable times, catalog/admissions publications, student government, and racial harmony.

Assessing Responses to Open-Ended Questions

More than three-quarters of persons who returned usable instruments answered open-ended questions. The majority of campus-personnel comments were judged "positive" in overall tone, but nearly two-thirds of student suggestions were judged to be in a predominantly negative context.

University mission and department mission. The prevalent concepts conveyed by heads/chairs and faculty are, in order of subcategory size, that age is not the major discriminating factor in determining who will be served by the university or its departments and divisions; that particular programs (such as continuing education and extension) are manifestations of such a mission; and that traditional functions and standards must be maintained in serving adults.

Purpose of advising unit. Two clear concepts emerged from advisor interpretations of unit purpose: a philosophy of treating each advisee as an individual case ("individual" concept) and a philosophy of serving all students, students in general ("group" concept). Nearly half the advisor responses contained content in the former, less than one-fifth in the latter category.

Increasing Advising-Unit Responsiveness. The largest content category of responses to requests for changes comprised suggestions for staff changes, such as adding staff and training present staff in methods of serving adults.

Student Priorities for Change. By far the largest single content category of student suggestions for change comprised requests that more courses be offered after 4 p.m. and on weekends. This supports the empirical finding which placed student satisfaction with availability of desired courses at suitable times at the bottom of a list of key environmental aspects.

Climate for Maintaining or Adopting Practices

The forecasting scheme which combined and weighted proponence and usage responses and derived totals for each practice in an instrument permitted ranking practices according to their "climate" scores. As expected, the scheme underscored the staying power of practices already in wide use, but it also allowed the extent of proponence for some specific practices to temper the low incidence of current use. Example of practices boosted into warmer climates for maintenance/adoption than their present usage rates alone would indicate, are, for heads/chairs, sponsoring or participating in staff workshops about adult-student needs; and for faculty, teaching "response" courses through the Division of Continuing Education. Pushed by the scheme into very cool climates were, for faculty, advising at off-campus locations, and for advisors, advising students about earning credit via correspondence study.

The weighting scheme also provided additional support for my broad conclusions, which follow.

DISCUSSION

This research project illustrates an effective, data-rich method of assessing responsiveness to adult undergraduates in a campus setting where that population is small in proportion to the traditional-age cohort and where resources for conventional self-studies are limited. I found that I could draw conclusions and make recommendations at the institution-wide level, at the campus-group level, and at the individual-practice level.

At the campus level, I concluded that proponence for practices effective in serving adult undergraduates is generally more extensive than I anticipated, but is neither evenly distributed across the campus nor uniformly proportionate to the distribution of adult undergraduates. Usage of practices effective in serving adult undergraduates lags considerably behind proponence everywhere except the University Without Walls, some support units, and probably the Division of Continuing Education. However, very few of the targeted practices are totally foreign to the University of Massachusetts at Amherst; several suitable for a wide age range of students are solidly in place. Predictably, usage corresponds more closely than does proponence to the numbers of adult undergraduates served. The highs and lows in adult students' satisfaction levels point clearly to specific services and environmental aspects which either merit praise or qualify as needing improvement.

I concluded that the university is <u>potentially</u> very responsive to adult undergraduates, and that fewer massive shifts in policy and procedure are needed than might be expected, given the press of serving a large traditional-age cohort. The key missing ingredient is a widely shared attitude that adult undergraduates are a legitimate and growing segment of the student population across the nation and in western Massachusetts. The requisite change in attitude could come about by further identifying, consolidating, and giving a

voice to the receptivity (proponence) which is now scattered across campus constituencies.

Focusing on campus personnel groups, I concluded that academic advisors are the most responsive to adult undergraduates, and, further, that staff advisors are more responsive than faculty advisors. Of the ten large academic units, the School of Education and the College of Health Sciences, which enroll the greater proportions of adult undergraduates, are the most responsive. The most responsive multi-function support units are Everywoman's Center and Placement Services; the most responsive of the narrower-scope support units are Transfer Affairs and the Bilingual Collegiate Program. The University Without Walls is very responsive to adult undergraduates. UWW students are more satisfied overall than are majors in traditional organizational units.

Where specific practices are at issue, proponence data, usage data, and/or satisfaction scores can be cited as grounds for increased emphasis on a great number of particular approaches. A dramatic example is the high proponence of faculty for teaching in the continuing-education mode compared to the low incidence of their actually doing so, especially when considered alongside low student satisfaction with the number of offerings scheduled after 4 p.m. (Familiarity with the local setting soon brings to bear that DCE teaching seldom contributes to faculty workload.) A second example is the often higher proponence and usage of staff advisors over faculty advisors.

Even certain clusters of <u>nontypical</u> responses suggest possible action: Several department/division heads and advisors expressed unfamiliarity or uncertainty about practices of awarding credit by equivalency methods such as those described in American Council on Education guides to military and business/industry training. This somewhat unexpected outcome suggests that wider acquaintance with these materials, which could be accomplished relatively easily, might increase both proponence for and usage of such practices.

Recommendations

Most multi-factor recommendations growing out of such a study are likely to be largely institution-specific. However, my choosing to cite three of my recommendations here is intended to show how applying adult higher education research in a local setting and within the wider context of national trends may support complex undertakings.

(1) I recommended that the university direct additional and public support to an academic advisors council, which was in its formative stages at the time of my survey, and in which all levels of advising responsibility were represented. The demonstrated and potential strengths and motivations of that group, as suggested by my study and the early activities of the group, would serve as a foundation for building increased responsiveness to students in general and adult students in particular.

(2) In an Office of Adult Learning Services, which I proposed as a clearinghouse for information about options available to the 25-and-older student, existing advising functions and other services could be enhanced. Population-specific approaches could be showcased there, such as computer-assisted advising software designed for adults. A database for research in adult and higher education could be maintained. Faculty could be offered development activities towards more effective teaching of older students. Representatives from several diverse campus units (including University Without Walls and the Division of Continuing Education) and various administrative levels could serve in advisory and problem-solving capacities.

(3) I recommended that a task force charged with identifying usage patterns and needs of older and part-time students should assess the status of and need for after-4-p.m. course offerings; determine older-student enrollment and success rates in independent studies; and improve the articulation of con-

tinuing-education modes of instruction with the larger mechanisms of traditional course delivery, faculty reward systems, and resource allocation.

My suggestions for further research include comparing satisfaction levels of adult students with traditional-age students; comparing faculty positions along some chosen adult-developmental continuum with their proponence and usage levels concerning certain instructional practices; differentiating, perhaps by developing a scaled-score instrument, among the nuances and antedecents of proponence; and refining and extending the climate formula to improve its predictive ability and for characterizing campus-personnel groups as well as individual practices.

Importance of Study

The Guide should continue to be a valuable resource for higher education in an area of increasing importance. The significance of my project lies in its effort to examine and adapt systematically a published resource so that a broad assessment can be conducted from a single base of operations. The Guide is the first widely available instrument of its kind, so a theoretically supported adaption describing instrument revisions and implementation processes should be usable by other institutions.

Another contribution will be the description of a particular campus-wide self-study of services to adult undergraduate students. Of interest are the steps in the process and the nature of the results, which can be presented in quantified form according to respondent characteristics and in narrative form which blends components to support conclusions and recommendations.

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